



# UNIVERSITY OF COLORADO DENVER

# PRE-ENGINEERING TRANSFER AGREEMENT FOR COMMUNITY COLLEGE STUDENTS

#### **Contact Information:**

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This guide is designed for Colorado community college students planning to transfer to University of Colorado Denver (CU Denver) for a Bachelor of Science degree from the College of Engineering, Design and Computing. This agreement identifies community college courses that will apply to the baccalaureate degree and will allow students beginning in a 2-year college to earn a baccalaureate degree in about the same amount of time as students beginning at the 4-year engineering program.

### If you plan to complete an engineering bachelor's degree at CU Denver, recognize that:

- 1. You should transfer into the bachelor's program after you take the required courses outlined below. Transfer hours beyond the credits below are not guaranteed to apply toward the engineering degree.
- 2. It is imperative that you contact an engineering advisor at the 4-year institution by the end of the first semester to clarify course work appropriate for your intended engineering major and to identify the community college courses and GPA necessary to meet the competitive admission requirements.
- 3. If your Colorado community college has an agreement with the 4-year institution, follow that agreement rather than this one.

**Mathematics Skills:** For community college students with strong mathematics skills who are ready to start in Calculus I, transfer to CU Denver is recommended after completion of the courses below. Students who are not ready for Calculus I should consider working toward an associate degree while communicating with both 2-year and 4-year advisors on the selection of courses appropriate for transfer into an engineering program and completion of the associate degree.

**Transfer Recommendations:** To graduate with a BS in an engineering degree in a time frame similar to that of a native CU Denver engineering major, it is important that engineering students begin taking engineering courses during the sophomore year. Community college students within commuting distance of the 4-year institution should inquire about the possibility of concurrent registration prior to transfer. Students who do not start with strong mathematics skills or who wish to continue their education at the community college beyond coursework outlined in this guide should explore with both 2-year and 4-year advisors how their graduation timeline, College Opportunity Fund (COF) stipend, and financial aid will be affected.

**Guarantees and Limitations:** Students who successfully complete (minimum C grade) the prescribed pre-engineering curriculum:

- are eligible to apply for admission directly into an engineering program at the 4-year institution
- are responsible for meeting all admission and graduation requirements at the 4-year institution
- are guaranteed, once admitted, application of the transfer hours below to either lower division general education, course work required for the engineering major, or elective credit
- must consult with the 4-year institution's engineering program for applicability of course work credits beyond those prescribed below toward degree requirements, as additional courses are major specific and the 4-year institution may restrict the number of community college transfer credits

Courses Applicable to II Engineering Majors (these are not admissions requirements)							
General Education Knowledge Area	Credit Hours	Community College (CCCS) Course No.	Course Title and gtPathways Category				
Written Communication	3	ENG 121	English Communication I (GT-CO1)				
	3	ENG 122	English Communication II (GT-CO2)				
Arts & Humanities	6		Two courses (GT-AH1, AH2, AH3, or AH4)				
Social & Behavior Science	6		Two courses (GT-SS1, GT-SS2, or GT-SS3)				
History	3		One course (GT-HI1)				
Natural & Physical Sciences	5	PHY 211	Physics: Calculus-based I (GT-SC1)				
	5	CHE 111	General College Chemistry I with Lab (GT-SC1)				
Mathematics	5	MAT 201	Calculus I (GT-MA1)				

### **Elective Courses**

Elective courses must be selected in consultation with the engineering advising office at the 4-year institution to verify they will transfer and apply to the student's chosen major requirements.

	Credit Hours	CCCS Course	Course Title	Bioengineering	Civil Engineering	Computer Science	Electrical Engineering	Mechanical Engineering
Advanced Mathematics	5	MAT 202	Calculus II (GT-MA1)	X	Х	X	Χ	Χ
	4	MAT 203	Calculus III (GT-MA1	X	X		Χ	Χ
	5	MAT 204	Calculus III with Engineering Applications (GT-MA1)	X	X		Χ	Χ
	3	MAT 135	Introduction to Statistics		Χ			Χ
	3	MAT 255	Linear Algebra	X <sup>1</sup>	X <sup>1</sup>	X <sup>1</sup>	X <sup>1</sup>	X <sup>1</sup>
	4	MAT 261	Differential Eq. with Engineering Application (GT-MA1)	X <sup>1</sup>	X <sup>1</sup>		X <sup>1</sup>	X <sup>1</sup>
	4	MAT 265	Differential Equations (GT-MA1)	<b>X</b> <sup>1</sup>	X <sup>1</sup>	X <sup>1</sup>	X <sup>1</sup>	X <sup>1</sup>
	4	MAT 266	Differential Equations with Linear Algebra	X	X	X	Χ	Χ
Science	5	BIO 111	General College Biology with Lab (GT-SC1)	X	X <sup>1</sup>	<b>X</b> <sup>1</sup>		<b>X</b> <sup>1</sup>
	5	BIO 112	General College Biology II with Lab (GT-SC1)	X	X <sup>1</sup>	<b>X</b> <sup>1</sup>		<b>X</b> <sup>1</sup>
	5	CHE 112	General College Chemistry II with Lab (GT-SC1)	X	X <sup>1</sup>	<b>X</b> <sup>1</sup>		<b>X</b> <sup>1</sup>
	5	PHY 212	Physics: Calculus-based II (GT-SC1)	X	X	<b>X</b> <sup>1</sup>	Χ	Χ
Computer Science	4	CSC 160	Computer Science I (C++ only)		X <sup>1</sup>	X		
	4	CSC 161	Computer Science II (C++ only)		<b>X</b> <sup>1</sup>	X		
Computer Aided Drafting	3	CAD 101	Computer Aided Drafting I		X <sup>1</sup>			<b>X</b> <sup>1</sup>
	3	CAD 102	Computer Aided Drafting II		X <sup>1</sup>			<b>X</b> <sup>1</sup>
	3	CAD 201, 202, 256, 259, EGG 101	CAD/Custom, Computer Aided Drafting/3D, Advanced Solidworks, Engineering Graphics I					<b>X</b> <sup>1</sup>
	6	CAD 257, CAD 258	Solidworks Intermediate, Solidworks Advanced					<b>X</b> <sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Certain restrictions apply. Consult the engineering advising office at the 4-year institution.

# **Transfer Disputes**

If there is a disagreement regarding the transferability of credits for coursework or a degree between a student and a receiving 2-year or 4-year institution, students may file a complaint at <a href="http://highered.colorado.gov/Academics/Complaints/default.html">http://highered.colorado.gov/Academics/Complaints/default.html</a>